REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, the claims have been amended for clarity.

Applicants believe that the above changes answer the Examiner's objection, and the Examiner's 35 U.S.C. 112, paragraph 2, rejection of the claims, and respectfully request withdrawal thereof.

The Examiner has rejected claims 1-7, 9 and 10 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0125962 to Christoph. The Examiner has further rejected claims 1-10 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 7,039,197 to Verkahesh et al. In addition, the Examiner has rejected claims 1, 2 and 5-10 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2002/0039425 to Burnett et al.

The Christoph patent publication discloses a method and apparatus for dynamic sound optimization, in which a desired signal is applied to a regulating apparatus 2 for processing the desired signal in respect of volume, compression, sound, etc. The output from the regulating apparatus 2 is applied to a loudspeaker 3. A microphone 4 picks up the sound from the loudspeaker 3 as well as acoustic noise in the environment of the system. The sound signal from the microphone is processed in order to generate a control signal C for the regulating apparatus 2. In one embodiment, the

desired signal is subtracted from the sound signal of the microphone in order to generate the control signal.

As noted in MPEP 2131, it is well-founded that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California,* 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.,* 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The Examiner states that Christoph discloses "audio signal (z y,r) inputs for a distorted desired signal (z, r) and at least a reference signal (y)(Figs. 1-2, 8-9, 26, and 28; page 5, paragraphs 0068-0070)".

The Examiner has not indicated what inputs in Christoph correspond to the audio inputs as claimed. However, in reviewing Christoph, it appears that the distorted desired signal input corresponds to the microphone 4 signal M, while the reference signal input is the desired signal from the signal source 1 or the desired signal as applied to the loudspeaker 3.

The Examiner now states that Christoph discloses "a spectral processor (PP) coupled to the audio signal (z, y, r) inputs for processing the distorted desired signal (z, r) by means of the at least one reference signal (y) acting as an estimate for the distortion of the desired signal (z, r) (Figs. 1-2, 8-9, 26,

and 28; page 4, paragraph 0066; page 5, paragraphs 0068-0070; page 9, paragraphs 0107-0108)".

Applicants submit that the Examiner is mistaken. In particular, in the subject invention, the spectral processor processes the distorted desired signal in order to obtain the desired signal, while in Christoph, the desired signal is processed in order to overcome the distortions in the environment. In addition, according to claims 1, 9 and 10, the at least one reference signal is used as an estimate of the distortion of the desired signal. In Christoph, the reference signal, i.e., the desired signal, is used to isolate the distortion from the distorted desired signal in order to generate a control signal for processing the desired signal.

The Examiner then states that Christoph discloses "the spectral processor (PP) is arranged for modifying said processing such that the estimate for the distortion is a function of A times the spectral power of the at least one reference signal (y), where A is a ratio between the time averaged spectral power of the distortion of the desired signal and the time averaged spectral power of the at least one reference signal (y) (Figs. 1-2, 8-9, 26, and 28; page 4, paragraph 0066; page 5, paragraphs 0068-0070; page 9, paragraphs 0107-0109)".

Applicants again submit that the Examiner is mistaken. In particular, since in Christoph, the reference signal (y) is not a estimate for the distortion of the desired signal, then clearly "the estimate for the distortion is a function of A times the

spectral power of the at least one reference signal (y), where A is a ratio between the time averaged spectral power of the distortion of the desired signal and the time averaged spectral power of the at least one reference signal (y)" is not disclosed in Christoph. Further, Applicants have reviewed each of the section of Christoph noted by the Examiner and have not found any disclosure of this limitation.

The Verkahesh et al. patent discloses a user interface for communication system, which includes a plurality of microphones and a plurality of loudspeakers.

Applicants have studied the Verkahesh et al. patent and are not able to determine what the Examiner believes to be the reference signal. This is particularly evident in that the Examiner cites exactly the same sections of Verkahesh et al. for each of the elements in all of the claims. It appears that the Examiner has used a "keyword" search and have cited all the sections that the keywords have appeared without determining whether Verkahesh et al. actually discloses the particular elements of the claim "in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Notwithstanding the above, Applicants are not able to find <u>any</u> disclosure in Verkahesh et al. that "the estimate for the distortion is a function of A times the spectral power of the at least one reference signal (y), where A is a ratio between the time averaged spectral power of the distortion of the desired signal and

the time averaged spectral power of the at least one reference signal (y)".

The Burnett et al. patent publication discloses a method and apparatus for removing noise from electronic signals, in which a first microphone receives predominantly a speech signal and also a noise signal, while a second microphone receives predominantly the noise signal and also the speech signal. The output signals from these microphones are processed, in conjunction with a voice activity detection (VAD) signal, to generate a noise-free speech signal.

It is unclear to Applicants what the Examiner believes the reference signal is in Burnett et al. However, the only apparent reference signal in Burnett et al. is the VAD signal. In that case, there is no way in which this signal can be used as an estimate of the distortion in the desired (speech) signal in that the VAD signal is a binary signal which is "zero" in the absence of a speech signal and "one" in the presence of a speech signal. As such, there can be no spectral power of the reference signal as specifically indicated in claims 1, 9 and 10.

In view of the above, Applicants believe that the subject invention, as claimed, is neither anticipated nor rendered obvious by the prior art, either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-10, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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